

Differentiability: A function is differentiable at a point when:

a.) It's continuous at that point

b.)
$$\lim_{h \rightarrow 0^-} \frac{f(x+h) - f(x)}{h} = \lim_{h \rightarrow 0^+} \frac{f(x+h) - f(x)}{h}$$

(In other words, the slope is the same from both sides)